

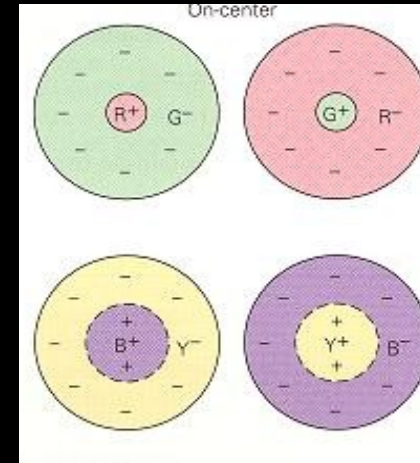
$$R = r - (g + b)/2$$

$$G = g - (r + b)/2$$

$$B = b - (r + g)/2$$

$$Y = (r + g)/2 - |r - g|/2 - b$$

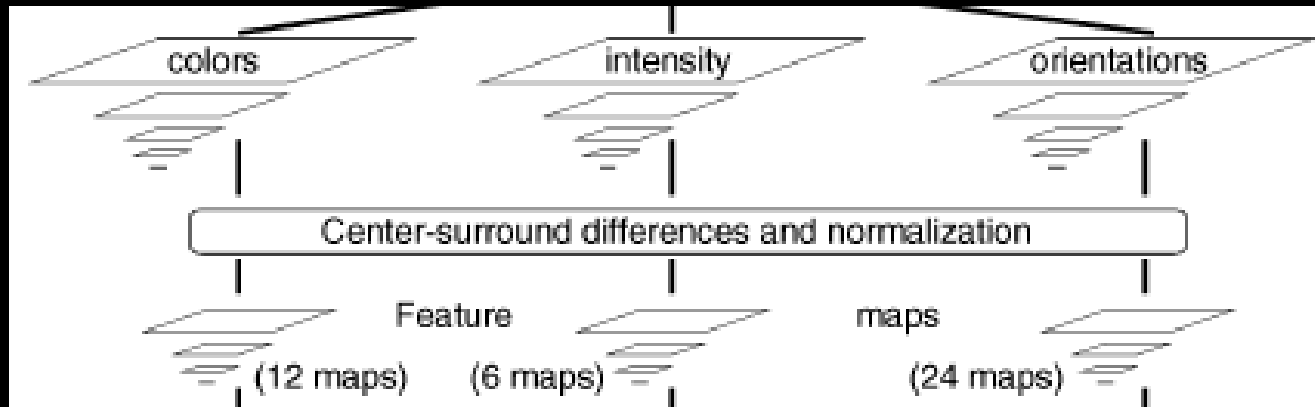
Gaussovské pyramídy $R(\sigma)$, $G(\sigma)$, $B(\sigma)$, $Y(\sigma)$



Intenzita $I = (r + g + b)/3$

Gaussovská pyramída $I(\sigma)$ 8 obrazov





Centrum-okolie: rozdiel medzi vrstvami Gaussovských pyramíd

Centrum: škály $c \in \{2, 3, 4\}$

Okolie: škály $s = c + d$, kde $d \in \{3, 4\}$

- ☐ Interpolácia jemnejšej škály na veľkosť hrúšej škály, bodové očítanie obrazov

Mapy intenzít: $I(c, s) = |I(c) \ominus I(s)|$

Mapy farieb: $\mathcal{RG}(c, s) = |(R(c) - G(c)) \ominus (G(s) - R(s))|$

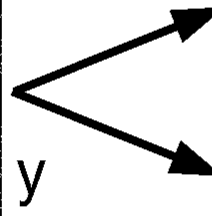
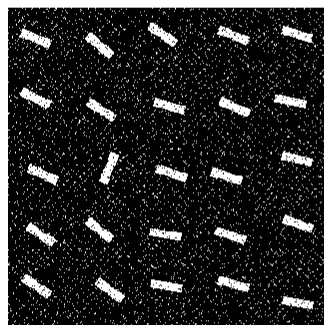
$\mathcal{BY}(c, s) = |(B(c) - Y(c)) \ominus (Y(s) - B(s))|$

Celkovo 18 máp:

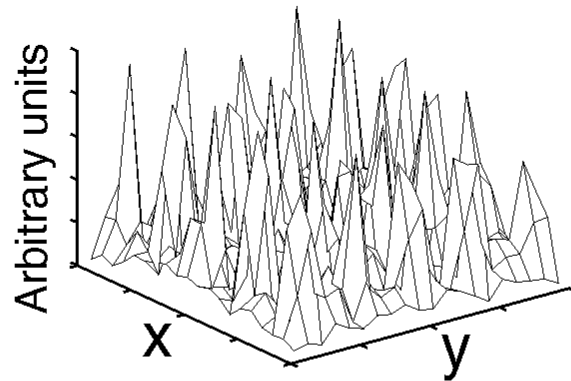
6 – intenzita

12 – farba

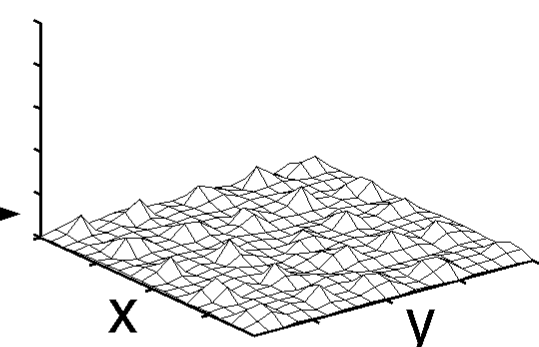
Stimulus



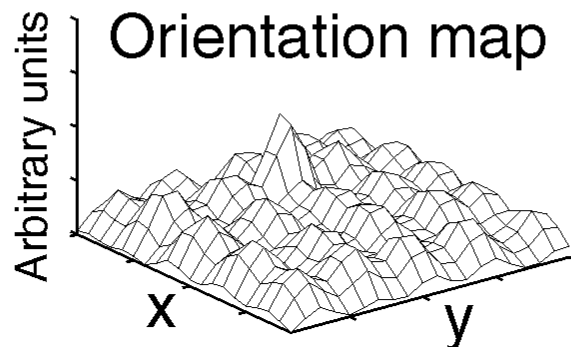
Intensity map



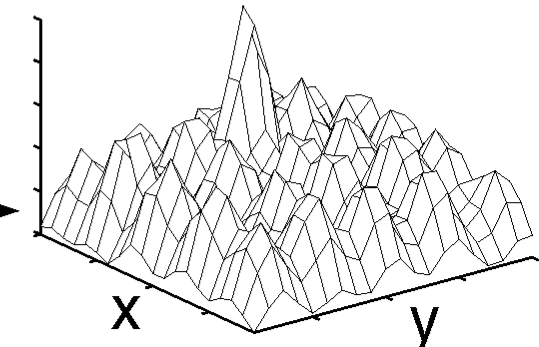
$\mathcal{N}(\cdot)$



Orientation map



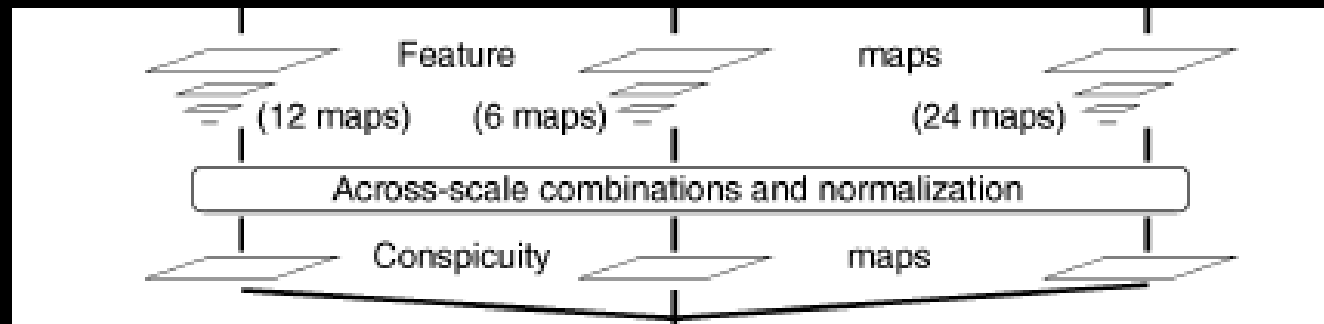
$\mathcal{N}(\cdot)$



normalizácia

operator $\mathcal{N}(\cdot)$

- 1) Mapovanie hodnôt do intervalu $\langle 0, M \rangle$
- 2) Priemer lokálnych maxím m (okrem globálneho maxima M)
- 3) Normalizácia mapy pre násobením $(M - m)^2$



⊕ zmena veľkosti na škálu 4, bodové sčítanie

Mapy nápadnosti:

$$\bar{I} = \bigoplus_{c=2}^4 \bigoplus_{s=c+3}^{c+4} \mathcal{N}(I(c, s))$$

$$\bar{C} = \bigoplus_{c=2}^4 \bigoplus_{s=c+3}^{c+4} \left[\mathcal{N}(\mathcal{R}\mathcal{G}(c, s)) + \mathcal{N}(\mathcal{B}\mathcal{Y}(c, s)) \right]$$